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One whose fire is burned out is born through the tendencies in mind; according to his thoughts he enters life. But linked by the fire with the Self, this life leads to a world of recompense. —PRASHNA UPANISHAD.

THEOSOPHY

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"OUR CYCLE AND THE NEXT"

When the terrible wheel of revolution begins to turn we shall see this time the emergence of the most appalling of all the antagonists who have ever stood forth to do battle against the existing order. The antagonist of whom I speak still preserves his fearsome incognito and dwells like a shabby pretender in the darkest recesses of organized society, in those catacombs where amid death and putrefaction the life of the future germinates and buds. Communism is the secret name of this redoubtable adversary who sets against the existing bourgeois world the domination of the proletariat with all its consequences. . . .

War would be merely the first act of the great drama, would be no more than a sort of prologue. The second act will be the European revolution, the world revolution, the immense combat between the "have-nots" and the "haves." . . .

The future speaks to us of scourges, of blood, of godlessness, and of a great deal of cudgeling. I counsel our grandchildren to come into the world with well-padded shoulders and backs.

It may be that the old tradition of absolutism will step forth once more upon the stage of the world, this time in a new costume, with new slogans and new catchwords.

THE great German poet, Heinrich Heine, recorded this terrible prediction just two years short of a century ago, in June, 1842. Of its accuracy, nothing need be said. Heine's penetrating intuition grasped the causes that then were being sown by the European nations, and in words that recall the similar prophecy of the Vishnu Purana, he told what must be their result.

Today another poet, not so great, perhaps, but wise in his time, holds up a mirror to the present. Whose is the failure, that Heine's prophecy comes true? Archibald MacLeish, Librarian of Congress

and formerly an editor of *Fortune,* writes a burning indictment of modern intellectuals in the *Nation* for May 18. Our men of letters, he says, unlike the learned of other centuries, have abrogated their responsibilities. For the scholar of the past, learning "was no plump pigeon carcass to be picked at for his private pleasure and his private fame but a profession practiced for the common good. . . . Whatever struck at truth or closed off question or defiled an art or violated decency of thinking struck at him. And he struck back with every weapon masters of the word could find to strike with."

> Milton [writes Mr. MacLeish] defending freedom of the mind in sentences which outlive every name of those who struck at freedom, Voltaire displaying naked to the grin of history the tyrants who were great until he made them small, Batholomew de las Casas gentling cruel priests and brutal captains with the dreadful strokes of truth—las Casas, Milton, and Voltaire were men of letters, men who confessed an obligation to defend the disciplines of thought not in their own but in the general interest.
>
> Had men like these been living in our time, had the intellectuals of our time been whole and loyal, it would, I think, have been impossible for the revolution of gangs to have succeeded where success has been most dangerous—in the perversion of the judgments of the mind. Murder is not absolved of immorality by committing murder. Murder is absolved of immorality by bringing men to think that murder is not evil. This only the perversion of the mind can bring about. And the perversion of the mind is only possible when those who should be heard in its defence are silent.
>
> . . . intellectual responsibility has been divided in our time and by division destroyed. The men of intellectual duty, those who should have been responsible for action, have divided themselves into two castes, two cults—the scholars and the writers. Neither of these accepts responsibility for the common culture or for its defense. . . . The single responsibility, the wholeness of function of the man of letters, has been replaced by the divided function, the mutual antagonism, the isolated responsibility of two figures—the scholar and the writer.
>
> Why this substitution has come about—whether because the methods of scientific inquiry, carried over into the humanities, destroyed the loyalties and habits of the mind or for some other reason —I leave to wiser men to say.

Mr. MacLeish shows better qualification to diagnose the evil ways into which we are fallen than many of those he might call "wiser men." It is indeed the method, or rather the materialism of science, carried over into the humanities, that has split the wholeness

of individual responsibility into impotent fragments. The wrongs men do, we have been told for generations, are not their own, but unavoidable expressions of "Nature"—that morally lawless Mother from whom we all have sprung. Listen to Karl Pearson's exposition of social theory founded on Darwinism:

> The struggle among primitive men of tribe against tribe evolved the social instinct. The tribe with the greater social feeling survived; we have to thank the struggle for existence for first making man gregarious, and then intensifying, stage by stage, the social feeling. Such is the scientific account of the origin of our social instincts; and if you come to analyze it, such is the origin of what we term morality; morality is only the developed form of tribal habit, the custom of acting in a certain way toward our fellows, upon which the very safety of the tribe originally depended. *(National Life from the Standpoint of Science.)*

A modern biologist, S. J. Holmes, comments on this doctrine: "Even the gentlest and most unselfish of the original impulses of human nature may be viewed as products of the intergroup struggle for survival. To express the matter in somewhat cynical terms we may say that it pays to be kindly to one's fellows in order to be more effective against one's enemies." It needed no Darwin, Pearson or Holmes to teach us the uses of selfishness; this was a discovery of Machiavelli's *Prince;* and Calvin some centuries before Freud had popularized the intrinsic depravity of man; the distinguished contribution of our men of modern science has been to honor selfishness as an *ethical characteristic!* The lie of politician and priest, sanctified by learned authority, has undergone various translations, multiplied and ramified throughout our lives until this dry-rot of soul has corrupted with moral defeatism every social ideal, blurred the vision of every reformer and dissipated the moral resolve and hope of the common man.

Our scholars have transmitted from the past all the Aristotelian categories of learning—the departments of "knowledge" and the growing stores of data; but they find no place for Platonic ardor, for the Socratic love of virtue as the highest truth. These lovers of the *objective* and the *physical* are waiting for statisticians to tell us whether or no virtue exists at all. Materialism has placed all our consciences in escrow with Theology, whom it despises, against the distant day when "research" will permit moral values to gain once more an independent currency. Truth is a corpse to be dissected, a sentiment to be measured on the slide-rule of endless relativity. Meanwhile, mechanical resonators send hollow echoes of the noble

intentions of our Fathers around the world, but these intentions are no longer supported by conviction; mediocrity has received its ultimate sanction at the hands of science, which defines irresponsibility as praiseworthy dispassion.

Heine looked ahead one hundred years, and saw the present. But there is no seer who can today so read the future. Mr. MacLeish sees the present, and sees it clearly; but if we would know what lies ahead for ourselves and the children of our times, a vision of another order is required. Let us turn, then, to the great Theosophical prophecies, to "Cyclic Evolution and Karma" in *The Secret Doctrine,* to the words of the "Turkish Effendi," to the *Lucifer* articles, "Our Cycle and the Next," "The Tidal Wave," and "Karmic Visions."* Let us study once more the Great Master's Letter; and, for the future of America, let us read of the new race to be formed on that great continent, not forgetting the trials and travail that accompany every birth. Of the destiny of the New World, Mr. Judge wrote in 1886:

> No matter about dates; they are not to be given; but facts may be. This glorious country, free as it is, will not long be calm: *Unrest* is the word for this cycle. The people will rise. For what, who can tell? The statesman who can see *for what* the uprising will be might take measures to counteract. But all your measures can not turn back the iron will of fate. And even the City of New York will not able to point its finger at Cincinnati and St. Louis. Let those whose ears can hear the whispers, and the noise of the gathering clouds, of the future, take notice; let them read, if they know how, the physiognomy of the United States, whereon the mighty hand of nature has traced the furrows to indicate the character of the moral storms that will pursue their course no matter what the legislation may be. But enough. Theosophists can go on unmoved, for they know that as Krishna said to Arjuna, these bodies are not the real man, and that "no one has ever been non-existent nor shall any of us ever cease to exist."

What was the end of the great nations of prehistoric antiquity? The unchanging law of Nature works in a single pattern throughout all her labors: Mixture, precipitation, and separation is the inevitable course of social as of organic life. Fitful gleams of Atlantean glory shone from the countless fragments of that enormous empire for many millenniums. When the great cycle is over, smaller cycles prevail. The men who will not unite, Nature separates. Then the anatomy of Mother Earth is known no longer; Geography be-

* All reprinted in THEOSOPHY.

comes a part of the Mysteries and the exploring genius of adventuring hearts is turned to other channels. Then Great Teachers suit their wisdom to the healing purpose of Nature, for every cycle has a lesson of its own. What was the age instructed by the teacher, Lao-tze? Are his words simply a relic of the dead past, or do they conceal a wisdom founded on cyclic law and the eternal fitness of things? He said:

> Were I ruler of a little State with a small population, and only ten or a hundred men available as soldiers, I would not use them. I would have the people look on death as a grievous thing, and they should not travel to distant countries. Though they might possess boats and carriages, they should have no occasion to ride in them. Though they might own weapons and armour, they should have no need to use them. I would make the people return to the use of knotted cords. They should find their plain food sweet, their rough garments fine. They should be content with their homes, and happy in their simple ways.

The wise man speaks to the victims of retributive justice in different accents from his adjurations to the rising energies of youth.

> He who serves a ruler of men in harmony with Tao will not subdue the Empire by force of arms. Such a course is wont to bring retribution in its train.
>
> Where troops have been quartered, brambles and thorns spring up. In the track of great armies there must follow lean years.
>
> The good man wins a victory and then stops; he will not go on to acts of violence. Winning, he boasteth not; he will not triumph; he shows no arrogance. He wins because he cannot choose; after his victory he will not be overbearing.
>
> Weapons, however beautiful, are instruments of ill omen, hateful to all creatures. Therefore he who has Tao will have nothing to do with them.

No man ever took up weapons because of Lao-tze, but many laid them down. Buddha never set the hand of any man against another, yet his presence was the most civilizing influence the world has ever known. The wise men of every age have added to the great fund of truth, the inheritance of all that is good in our civilization; and they were all warriors, but warriors who contested, not against men, but for truth against ignorance. The Wisdom of the Ages has been preserved for posterity by lovers of peace. It is their work, their Movement, that the body of theosophists active in the world have taken in trust. Of that body, H.P.B. wrote:

> Unconcerned about politics; hostile to the insane dreams of Socialism and of Communism, which it abhors—as both are but disguised conspiracies of brutal force and sluggishness against honest

labour; the Society cares but little about the outward human management of the material world. The whole of its aspirations are directed toward the occult truths of the visible and invisible worlds. Whether the physical man be under the rule of an empire or a republic, concerns only the man of matter. His body may be enslaved; as to his Soul, he has the right to give to his rulers the proud answer of Socrates to his Judges. They have no sway over the *inner* man.

And of the future:

But what has the new cycle in store for humanity? Will it be merely a continuation of the present, only in darker and more terrible colours? Or shall a new day dawn for mankind, a day of pure sunlight, of truth, of charity, of true happiness for all? The answer depends mainly on the few Theosophists who, true to their colours through good repute and ill, still fight the battle of Truth against the powers of Darkness. . . .

If Theosophy prevailing in the struggle, its all-embracing philosophy strikes deep root into the minds and hearts of men, if its doctrines of Reincarnation and Karma, in other words, of Hope and Responsibility, find a home in the lives of the new generations, then, indeed, will dawn the day of joy and gladness for all who now suffer and are outcast. For real Theosophy IS ALTRUISM, and we cannot repeat it too often. It is brotherly love, mutual help, unswerving devotion to Truth. If once men do but realize that in these alone can true happiness be found, and never in wealth, possessions, or any selfish gratification, then the dark clouds will roll away, and a new humanity will be born upon earth. Then, the GOLDEN AGE will be there, indeed.

But if not, then the storm will burst, and our boasted western civilization and enlightenment will sink in such a sea of horror that its parallel History has never yet recorded.

THE UNPOPULAR PHILOSOPHER

The superior mind will find itself equally at odds with the evils of society, and with the projects that are offered to relieve them. The wise sceptic is a bad citizen; no conservative; he sees the selfishness of property, and the drowsiness of institutions. But neither is he fit to work with any democratic party that ever was constituted; for parties wish everyone committed, and he penetrates the popular patriotism. —RALPH WALDO EMERSON.

VIEWPOINTS

INQUIRERS into Theosophy experience little difficulty in endorsing the Theosophical ideal of the brotherhood of man, the doctrine of the universality of law and of self-induced progress, and similar teachings—truths more or less self-evident even to the personal mind that is dominated by the senses. But when Theosophy suggests the reality of inner planes and states of man and nature, it approaches what many deem to be forbidden territory. Their instinctive response (rooted in soul-starving, materialistic education) is to make a rapid retreat from anything suggesting an invisible universe. Consequently, Theosophy is often considered to be at best the invention and imaginings of men, and is consigned without investigation to the limbo where properly belong the fantastic and illogical teachings of a material heaven and hell, anthropomorphized God, angels and devils, and other fables of religious superstition believed in by the various Christian sects.

Theosophical teachings on the unseen cosmos are no invention of man, nor are they a revelation from some hypothetical supreme being. They are simply facts seen and known by very wise beings; facts which can be seen and known by anyone who is willing to comply with the conditions requisite for such perception and knowledge. Those versed in the wisdom of the hidden world arrived at their learning after developing the instruments and acquiring the power to see behind the curtain that hides the operations of nature from the ordinary mind. But initiation into these perceptive mysteries can no more be accomplished by the unequipped and unprepared than can the abstract mathematical equations of an Einstein be understood or proved by one who has not gone through years of intensive training in higher mathematics. The investigations of the great adepts, the knowers and Teachers of Theosophy, were conducted in the spirit of the genuine scientist, the experiments of one sage never being accepted as conclusive until they had been checked, verified and proved by the independent investigations of countless generations of fellow seers. These *spiritual* scientists have offered mankind not only a portion of this precious knowledge, but, more important, perhaps, than anything else, they have provided the rules of moral and occult discipline through which a man may in time be able to subject these teachings to the test of first-hand experience. Even so, the student is not asked to believe blindly until he has reached that far-off terrace of enlightenment. Every opportunity is at hand to satisfy himself with regard to the familiar facts of nature and common human experience; and by employing the

law of analogy and correspondence, he can perceive the reasonableness, if not the full import, of the teachings concerning those aspects of life as yet beyond his direct vision.

It would be impossible to appreciate the Theosophical statements concerning the invisible realms of nature without a preliminary acquaintance with the inner being of the man who does the traveling through all states. Man, Theosophy teaches, is an immortal being who can approach the universe from several points of view, and his field of manifold experience is in, through, and upon degrees of life or substance corresponding to his various levels of perception.

Man's approach to life from the viewpoint of physical material existence is familiar to all. When thus engaged he is using earthly matter, molding it to serve his own purposes. Every man may also view the world of manifestation through the channel of desires and passions. He is then employing the elemental lives which correspond to and are a reflection of those desires. A desire harbored in the mind is no nebulous abstraction. It is tangible and substantial, though more tenuous than the earthy material contacted with the dull physical senses. This must be true in that a single desire fixed in a man's mind is often the moving power behind an entire lifetime of action. A man obsessed with the ambition for power over his fellows has this prevailing motive in his relations with other men, and he may change the destiny of a whole nation by the attainment of his end. Surely a desire with such dynamic power, giving concentration and power to every faculty and instrument of the personal man, is neither hazy nor non-substantial; it is a causal force objectively perceived by our minds—a force superior to, and therefore more real, than any merely physical power.

In every movement man uses his vital energy, his pranic basis of action; the animated activities of the child, of the man of exuberant physical health, may be regarded as in themselves a mode of experience. Those whose spirits rise and fall accordingly as they are well or sick, or the weather favorable or unfavorable, look at life predominantly from this pranic point of view.

Seeing life through the lens of the reasoning mind marks another means of perceiving this living universe. Here, too, man works with life, but uses substance still more subtle and refined. The fact that mental processes are so rapid, that a thought flashing through the mind, for example, may react immediately on the physical body, producing good or evil result, suggests that the material or lives on and in which thought operates, are highly responsive and well trained.

The higher manasic and the soul or spiritual point of view and their corresponding states complete the field with conscious, Egoic experience. The substratum for the activities of this trinity is said to be composed of lives of a nature so nearly homogeneous as to be instantly and entirely plastic to the nature of the Real Man. Action on this plane, however, is beyond the ken of ordinary mortals, although the voice of conscience, the suggestions found in dreams, and occasional flashes of intuition are glimmerings reaching the brain-mind from the spiritual intelligence of these higher principles.

The sole self-conscious actor in the universe, man, thus plays simultaneously several great roles in the drama of cosmic existence. The characters and costumes for those parts are represented in Theosophy as the principles of man's sevenfold constitution; and the stage and scenery for the activities of the players are provided by the seven planes of nature. Each performance (incarnation) reaches its climax when man enters into physical embodiment, for then he is a complete septenary being in immediate touch with the whole of nature, inner and outer.

Man acts on inner planes with every thought and feeling, and his ignorance of this does not affect the fact. In ordinary bodily action, a man is oblivious of the complex physiological processes the body undergoes in executing the slightest mandate of his will. Because we do not see or feel these invisible bodily functionings, would we be justified in asserting their non-existence? No more are we justified in denying to man the possibility of inner powers, faculties and instruments. Applying all this to after-death states, it should be evident that these are not far-off "places," of which the man has no living experience. He is daily sustained in *all* these inner states, while appearing to occupy only a physical instrument; after death he is limited to the use of one stratum of life and instrument at a time.

The permanent factor in all human experience is the imperishable triad of Atma-Buddhi-Manas. This is the real being and its perfectly responsive or *soul* instruments. The four lower bases for action are not yet under man's complete control; hence, they are imperfect and subject to death and decay as a combination. Man's task in evolution is to bring his lower nature under the perfect guidance of his spiritual will, so that it, too, will share in the immortality of the trinity and afford the Ego an unobstructed channel for the expression of Self on every plane of being.

THE ASTRAL BODY

HISTORICAL STUDIES: VII

A new concept appears in physics, the most important invention since Newton's time: The field. It needed great scientific imagination to realize that it is not the charges nor the particles but the field in space between the charges and the particles which is essential for the description of physical phenomena. . . .

In the beginning, the field concept was no more than a means of facilitating the understanding of phenomena from the mechanical point of view. . . . The recognition of the new concept grew steadily, until substance was overshadowed by the field. It was realized that something of great importance had happened in physics. A new reality was created, a new concept for which there was no place in the mechanical description. Slowly and by a struggle the field concept established for itself a leading place in physics and has remained as one of the basic physical concepts. The electromagnetic field is, for the modern physicist, as real as the chair on which he sits.[1]

—ALBERT EINSTEIN.

AGAIN, physics has pointed out the way to biology. "Field physics," Dr. H. S. Burr, anatomist of Yale University, told the National Academy of Sciences in an address in April of last year, "centers theory and experimentation upon the medium in which the system as a whole is imbedded and upon its structure." The physical doctrine of the field, together with certain facts of embryology, Dr. Burr said, caused him and his colleague, Dr. F. S. C. Northrop, Yale professor of Philosophy,[2] to formulate the "electro-dynamic theory of life." In 1935, the anatomist, Dr. Burr, working with a physicist, Dr. Cecil T. Lane, and a physiologist, Dr. Leslie F. Nims, all of Yale, developed an instrument capable of measuring electrical changes in the body as small as five-millionths of a volt. With this sensitive device they studied the subtle electrical variations which accompany all growth processes and physiological changes. In November, 1936, Waldemar Kaempffert, science editor of the New York *Times,* reported on the early experiments with the "vacuum-tube microvoltmeter," as the measuring instrument is called. He wrote:

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[1] Einstein and Infeld, *The Evolution of Physics* (New York: Simon & Schuster, 1938), pp. 157-8, 259.

[2] See THEOSOPHY XXV, pp. 162 and 211, for a review of *Science and First Principles* by Dr. Northrop.

Thousands of tests already made show that living creatures all generate electricity in measurable amounts and that each species has its characteristic, rather stable electrical pattern. The pattern changes minutely and thus reflects variations in the process of living. . . .

They [Drs. Burr and Northrop] saw that living things are amazingly constant. Flesh is cut open and bleeds and heals; tissues fall a prey to disease but cure themselves. Somehow the integrity of the whole organism is never lost.

No one knows why this should be so. In the field, thinks Prof. Burr, may lie the causative factor that gives meaning to the unity of nature and that explains why wholes tend to remain wholes and atoms to form wholes, whether bits of wood or men. . . .

Some years hence it may turn out that this instrument has revealed a crucial element or pattern in the design of living things. So it will be possible to explain how an animal grows from a single egg into a complex man with arms, legs, a brain and heart, and possible, also, to explain how the chromosomes in the cell determine why our faces are what they are and why eyes are blue, brown or black. In a word, "animal electricity," scoffed at since Galvani's time, may manifest itself as life.[3]

In April, 1939—something less than three "years hence"—Drs. Burr and Northrop presented the epoch-making results of their research, and the conclusion: "The simplest assumption with which to explain all the evidence so far gathered is that of the existence in the living organism of an electro-dynamic field." This field, Dr. Burr added, is the "true" architect of the organism.[4] Following are some of the findings of the Yale experiments, as reported in the press:

In the growing embryo, the electrical pattern develops hand in hand with the development of the whole organism. All else in the body undergoes constant change; the individual cells of which the body is made, excepting the germ cells, grow old and die, to be replaced by other cells, but the electrical architect remains the only constant throughout life, building new cells and organizing them after the same pattern of the original cells, and thus, in a literal sense, recreating the body. . . .

The experimental evidence shows, according to Dr. Burr, that each species of animal and very likely also the individuals within the species have their characteristic electrical field, analogous to the lines of force in a magnet. This electric field, having its own pattern, fashions all the protoplasmic clay of life that comes within its sphere of influence after its image, thus personifying itself in the living flesh as the sculptor personifies his idea in stone. . . .

[3] New York *Times*, Nov. 15, 1936. [4] New York *Times*, April 25, 1939.

> The Yale scientists have succeeded in revealing the master architect at work, and even to catch the first outlines of his configuration in space, showing him to be in absolute control of the organism as a whole and of its parts, and at all times correlating the workings of the parts with the whole.[5]

According to another account of the Yale investigations:

> Electrical potentials in the living body build up at an extremely rapid rate when it is in the embryonic state and during the first third of the life span. Measurements made on mice indicated, Dr. Burr said, that the electrical potentials increased during the first third of life, remained stationary during the middle third and then declined during the latter third.
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> The electrical potentials are found in the human body as well as in the lower animals and their alterations from normal indicates fundamental changes taking place in the body.[6]

In the light of these researches, it is safe for the theosophist to conclude that the "field" concept will one day replace altogether the mechanical theories of modern biologists in their attempts to solve the mystery of form. Particle physics is now subordinated to field physics. We may look forward to a future time when the "particle" biology of chemo-physical theory will yield to concentrated study of the "fields" of life.

The vital forces which become manifest within these fields are but the tools and final means for the accomplishment of the purposes of Nature, acting periodically, and apparently mechanically in some respects, through an inward impulse mixed up with, but beyond their material nature. The key to understanding biological field phenomena is given by H. P. Blavatsky. She wrote in *The Secret Doctrine* in 1888:

> There is a purpose in every important act of Nature, whose acts are all cyclic and periodical. But spiritual Forces having been usually confused with the purely physical, the former are denied by, and therefore, have to remain unknown to Science, because left unexamined. Men of science will say: We deny, because nothing of the kind has ever come within the scope of our experience. But, as argued by Charles Richet, the physiologist: "So be it, but have you at least demonstrated the contrary? . . . Do not, at any rate, deny *a priori*. Actual Science *is not sufficiently advanced to give you such right.*"[7]

While "spiritual Forces," scientists may say, are beyond our ken, it is impossible for modern biology to deny, in the face of its own data, that abundant evidence of the forces called *astral* in Theosophy

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[5] *Ibid.* [6] New York *Herald Tribune*, April 25, 1939. [7] *Op. cit.* I, 640.

is now within the scope of scientific experience. A statement from William Q. Judge will be found to integrate the new biological knowledge of form far better than any of the current scientific hypotheses. According to *The Ocean of Theosophy,* published in 1893:

> The astral body precedes the material one. The astral body is made of matter of very fine texture as compared with the visible body, and has a great tensile strength, so that it changes but little during a lifetime, while the physical alters every moment. . . . The matter of which it is composed is electrical and magnetic in its essence. . . .
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> The astral body is the guiding model for the physical one, and all the other kingdoms have the same astral model. Vegetables, minerals, and animals have the ethereal double, and this theory is the only one which will answer the question how it is that the seed produces its own kind and all sentient beings bring forth their like. Biologists can only say that the facts are as we know them, but can give no reason why the acorn will never grow anything but an oak except that no man ever knew it to be otherwise. . . .
>
> The model for the growing child in the womb is the astral body already perfect in shape before the child is born. It is on this the molecules arrange themselves until the child is complete, and the presence of the ethereal design-body will explain how the form grows into shape, how the eyes push themselves out from within to the surface of the face, and many other mysterious matters in embryology which are passed over by medical men with a description but no explanation. This will also explain, as nothing else can, the cases of marking of the child in the womb, sometimes denied by physicians but well-known by those who care to watch, to be a fact of frequent occurrence. The growing physical form is subject to the astral model; it is connected with the imagination of the mother by physical and psychical organs; the mother makes a strong picture from horror, fear, or otherwise, and the astral model is then similarly affected. In the case of marking by being born legless, the ideas and strong imagination of the mother act so as to cut off or shrivel up the astral leg, and the result is that the molecules, having no model of leg to work on, make no physical leg whatever; and similarly in all such cases. But where we find a man who still feels the leg which the surgeon has cut off, or perceives the fingers that were amputated, then the astral member has not been interfered with, and hence the man feels as if it were still on his person. For knife or acid will not injure the astral model, but in the first stages of its growth ideas and imagination have the power of acid and sharpened steel.[8]

[8] *Op. Cit.,* pp. 39-41.

Taking together the discoveries at Yale and the facts of development in embryonic growth and in regeneration, it seems just to say that modern biology acknowledges an electro-magnetic principle of formation which guides the differentiation of the organism. This principle, whether it be called "morphogenetic field," "organizer," or "metastructure," is the astral body of Theosophic teaching. When a biologist speaks of the development of organs as "the expression of an already existing but invisible structural organization," he describes the nature and function of the astral body in almost the same words as those used by Mr. Judge.

The next step, obviously, is a recognition of the relation between *thought* and all patterns of form, which would make thorough-going Platonic realists of scientific investigators. The phenomena of development are scientifically as well as philosophically inexplicable without some conception of noumenal forms. The world of noumena, however—the world of *Ideas* as causes—is for modern scientists unknown, unconsidered, and save in a few exceptional instances, wholly unsuspected. That is the reason why the facts which support the Theosophical teachings on this phase of the subject are ignored by the workers in research. The facts are there, but they confirm no current theory and upset materialistic preconceptions; hence, they receive no attention.

Mind *can,* visibly, mold the form of matter, and those desiring to investigate thoroughly this occult proposition should read *Isis Unveiled.*[9] Here, as a striking single instance of the power of the mother's imagination over the physical form of her unborn infant, a recent wonder of the medical world may be cited. In Manila, on Aug. 7 of last year, a child was born with its heart exposed on the outside of its chest. The heart was abnormal in size, and was covered only with a thin, transparent layer of pericardial tissue, making the entire organ clearly visible. The hope that an operation might place the heart in its normal bodily cavity had to be abandoned because X-ray photographs showed that no cavity existed. *Why* was the heart outside the body, and *why* did the growing embryo provide no normal cavity? This extraordinary malformation is absolutely without explanation from the medical point of view, but is easily understood in the light of Theosophy. According to a United Press dispatch, the mother was a devout Catholic, a Filipino woman who had been bed-ridden for three months prior to the child's birth. During that time she gazed constantly at two pictures on the wall, one of the Virgin Mary, the other of Jesus Christ *with heart exposed!*

[9] Particularly Vol. I, 385-400.

In *Isis Unveiled,* H. P. Blavatsky quotes from Dr. Henry More's *Immortality of the Soul* (1659) to show the potency of the human mind on the subtle forces of nature. She says:

> The author, Dr. More, views the fœtus as if it were a plastic substance, which can be fashioned by the mother to an agreeable or disagreeable shape, to resemble some person or in part several persons, and to be stamped with the effigies, or as we might more properly call it, the *astrograph,* of some object vividly presented to her imagination. These effects may be produced by her voluntarily or involuntarily, consciously or unconsciously, feebly or forcibly, as the case may be. It depends upon her ignorance or knowledge of the profound mysteries of nature.[10]

The fact that the mother can control the appearance of her unborn child was so well known among the ancients that it was the custom among wealthy Greeks to place fine statues near the bed, so that she might have a perfect model constantly before her eyes. The laws governing this process are described in *Isis Unveiled.* In illustration of the principle to be detailed, H.P.B. cites the case of a boy who was killed by lightning. Upon stripping his body, she says, "there was found imprinted upon his breast the faithful picture of a tree which grew near the window which he was facing at the time of the catastrophe, and which was also felled by the lightning."[11] This electrical photography furnishes an analogy by which we may understand how the mental images of the mother are transmitted to the unborn child. H.P.B. explains:

> . . . a pregnant woman is physically and mentally in a highly impressible state. . . . her intellectual faculties are weakened, and . . . she is affected to an unusual degree by the most trifling events. . . . Her *pores* are opened; she exudes an *odic* emanation which is but another form of the akasa, the electricity, or life-principle. . . . Magnetic currents develop themselves into electricity upon their exit from the body. An object making a violent impression on the mother's mind, its image is instantly projected into the astral light, or the universal ether. . . . the repository of the *spiritual* images of all forms, and even human thoughts. Her magnetic emanations attract and unite themselves with the descending current which already bears the image upon it. It rebounds, and repercussing more or less violently, impresses itself upon the fœtus, according to the very formula of physiology which shows how every maternal feeling reacts on the offspring. . . . As Phidias, gathering together the loose particles of clay and moistening them

[10] *Op. cit.,* I, 385.
[11] *Ibid.,* 394-5. See the similar case noted in THEOSOPHY for December, 1939 (XXVIII, 90-1).

> with water, could give plastic shape to the sublime idea evoked by his creative faculty, so the mother who knows her power can fashion the coming child into whatever form she likes. Ignorant of his powers, the sculptor produces only an inanimate though ravishing figure of inert matter; while the soul of the mother, violently affected by her imagination, blindly projects into the astral light an image of the object which impressed it, and, by re-percussion, that is stamped upon the fœtus.[12]

This law explains not only cases of the marking or malformation of unborn children, but also the stigmata which sometimes appear on the bodies of religious enthusiasts who think much of the sufferings of Christ. Nearly one hundred cases of stigmatization are reviewed in the *Encyclopedia Britannica* (11th ed.), most of which have occurred among residents in religious houses, after the austerities of Lent, usually on Good Friday. In modern times there is the case of Theresa Neumann, of Konnersreuth, Germany, whose wounds on hand, foot, and brow have been acknowledged as genuine, and without medical explanation, by such eminent physicians as Baron Doctor von Aretin.[13]

If deviations from the normal, as in the case of the malformation of children, can thus be shown to be the result of thought, then it is natural to conclude that the normal is likewise a reflection of idea. This is the universal principle on which Theosophical explanation of *all* forms is based. In the words of H.P.B.:

> There *can be no objective* form on Earth (nor in the Universe either), without its astral prototype being first formed in Space. From Phidias down to the humblest workman in the ceramic art—a sculptor has had to create first of all a model in his mind, then sketch it in one and two dimensional lines, and then only can he reproduce it in a three dimensional or objective figure. And if human mind is a living demonstration of such successive stages in the process of evolution—how can it be otherwise when NATURE'S MIND and creative powers are concerned?[14]

It is at this point that occult science must part company with its lagging pedestrian follower, modern empirical research, for where is the "experiment" that will be accepted as proving the formative power of the mind in nature? To the unprejudiced eye, all nature itself is such a demonstration, incomprehensible except on the theory that every form unfolds from an ideal existence on higher planes, but to the scientific mind, schooled in the study of minute particulars, this evidence is far too "universal" to be admitted. And because the universal proposition is denied, such particular instances of the

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[12] *Ibid.*, 394-7. [13] See THEOSOPHY XXVI, 428-9. [14] *The Secret Doctrine* II, 660 fn.

process as are available for scientific examination have been uniformly ignored, from the day of Paracelsus to the present century.

"Spontaneous generation" is the phrase used by science to describe the hypothetical origin of forms of life on earth. Thomas Huxley, in an address intended to show that the emergence of living forms from so-called "inanimate" matter had not been demonstrated to his satisfaction, nevertheless affirmed his own philosophic faith in "the evolution of living protoplasm from not living matter."[15] But whenever a scientist has described experiments which seem to demonstrate the reality of this process, he has been totally ignored. The *Scientific American* for Aug. 12, 1868, reported the production of *acari* by Andrew Crosse, of England, in the following manner:

> Black flint burned to redness and reduced to powder was mixed with carbonate of potash, and exposed to a strong heat for fifteen minutes; and the mixture was poured into a blacklead crucible in an air furnace. It was reduced to powder while warm, mixed with boiling water; kept boiling for some minutes, and then hydrochloric acid was added to supersaturation. After being exposed to voltaic action for twenty-six days, a perfect insect of the *acari* tribe made its appearance, and in the course of a few weeks about a hundred more. The experiment was repeated with other chemical fluids with like results.[16]

A French scientist of the same period, Antonie Béchamp, on whose researches Pasteur rose to fame, described observations of similar import, and the English physician, H. Charlton Bastian, performed experiments showing that various microscopic organisms—Bacilli, Bacteria, Vibriones, Torulae and other fungus germs—will appear in sterile colloidal solutions after the latter have been variously treated.[17] Whence these forms? Either they are miracles having no natural explanation or they represent types which pre-existed on the astral plane. "Spontaneous generation" is simply an expression concealing modern scientific ignorance of the process by which astral prototypes pass into objective physical existence. According to *The Secret Doctrine,* "There are precise domains wherein the astral merges into physical evolution,"[18] and although "spontaneous generation has changed its methods now, owing perhaps to accumulated

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[15] *Discourses and Biological Essays* (New York: D. Appleton, 1896), pp. 255-7.

[16] Quoted in *Isis* I, 465 (See also *Theosophist* VI, 5, for further details of this experiment).

[17] See *The Origin of Life,* by Dr. Bastian (New York: Putnam's Sons, 1911), and E. Douglas Hume, *Béchamp or Pasteur* (London: C. W. Daniel Co., 1932); also the Pamphlet, *The Laws of Healing,* pp. 32-7.

[18] *S. D.* II, 257.

material on hand, so as to almost escape detection, it was in full swing in the genesis of terrestrial life."[19] H.P.B. says further:

> Astral matter, it must be noted, is fourth state matter, having, like our gross matter, its own "protyle." There are several "protyles" in Nature, corresponding to the various planes of matter. The two sub-physical elemental kingdoms, the plane of mind (*manas,* the fifth state matter), as also that of Buddhi (sixth state matter), are each and all evolved from one of the six "protyles" which constitute the basis of the Object-Universe. The three "states," so-called of our terrestrial matter, known as the "solid," "liquid," and "gaseous," are only, in strict accuracy, SUB-states. As to the former reality of the descent into the physical, which culminated in physiological man and animal, we have a palpable testimony in the fact of the so-called spiritualistic "materializations." In all these instances a complete temporary mergence of the astral into the physical takes place.[20]

Most astonishing of all the modern clues to the "mind" of Nature are the discoveries of an English biochemist, Mr. Morley-Martin, who died in 1938.[21] He reduced a piece of azoic rock to cinders and slag by heating it to 2000-3000 degrees Fahrenheit in an electric furnace. This material was then treated further in a steam-sterilizer, a new substance being obtained which Mr. Morley-Martin called "primordial protoplasm." In crystal form, the latter was observed to give off a liquid which spread throughout the container. When the container and its contents were exposed to X-rays and ultra-violet rays, the crystals condensed, releasing numerous organisms of microscopic dimensions. The formation of multitudes of tiny fish, insects and plants was watched through a microscope of magnifying power of two or three thousand diameters. Perfect sterility was claimed by Morley-Martin for the conditions of his experiments. The results, in the words of Maeterlinck, led the biochemist to believe "that he had proved that life is immortal, universal, indestructible, and that the idea, the image or the prototype exists prior to that which we know as matter."

It seems evident that Morley-Martin hit upon a means of peering into the *Anima Mundi,*[22] or of establishing under laboratory control

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[19] *Ibid.,* 151. [20] *Ibid.,* 737.

[21] His experiments are described in a recent book by Maurice Maeterlinck, *The Great Door* (Paris: Charpentier), a portion of which is translated in the *Magazine Digest* for July, 1939.

[22] The lower aspect of the *Anima Mundi,* H.P.B. says, "is the life-principle of every living creature, and furnishes the astral soul, the fluidic *perisprit,* to men, animals, fowls of the air, and everything living." (*S. D.* I, 196-7.)

some transitional state between the astral and the physical on a microscopic or germinal scale.[23] The forms produced from the piece of azoic rock included tiny replicas of creatures of the archaic past, particularly sea animals. Under the observer's eye they live, move and consume the mother-protoplasm from which they were born, and devour each other. In the one-inch circle of microscopic observation, Morley-Martin counted some 15,000 tiny fish—apparently the offspring of about forty crystals of his "primordial protoplasm." They were indeed immortal, for if placed in the electric furnace and reduced to ashes they would afterward emerge from the residue and reorganize themselves.

Mr. Morley-Martin's philosophical conclusions are summarized by Maeterlinck:

> According to Morley-Martin, the creatures which he awoke from their immemorial slumber are the reincarnations of a specific and eternal force. Life is not the expression of the organism, but, on the contrary, the organism is the expression of some prior and indestructible vital force. Nothing ever dies, and even if it should be assimilated by the vegetable kingdom, animal life maintains its identity and its capacity for self-resurrection. Life's opposite is not death, but latency. Indeed, one is compelled to conclude that man himself is latent in the earth's rock. The portion of life that manifests itself bodily is negligible beside that which remains uncorporeal. . . . one is compelled to ask whether all humanity, past and future is not imprisoned in latent form in the rocks and sands of our terrestrial sphere.[24]

We have only to quote in comparison a statement from *The Secret Doctrine* to see how curiously exact is this materialized reflection of the occult doctrine. H.P.B. wrote:

> Everything that *is, was,* and *will be,* eternally IS, even the countless forms, which are finite and perishable only in their objective, not in their *ideal* Form. They existed as Ideas, in the Eternity,* and, when they pass away, will exist as reflections. Neither the form of man, nor that of any animal, plant or stone has ever been *created,* and it is only on this plane of ours that it commenced "becoming," i.e., objectivising into its present materiality, or expanding *from within outwards,* from the most sublimated and supersensuous essence into its grossest appearance.[25]

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[23] Dr. Bastian spoke of the "germinality" of his colloidal preparations (*Op. cit.*, pp. 17-23). [24] *Magazine Digest,* July, 1939. [25] *Op. cit.,* I, 282.

* Occultism teaches that no form can be given to anything, either by nature or by man, whose ideal type does not already exist on the subjective plane. More than this; that no such form or shape can possibly enter man's consciousness, or evolve in his imagination, which does not exist in prototype, at least as an approximation.

"MAN OF MEDITATION"

ILLUMINATION and its absence symbolize extremes in nature and in man, but whether moving in light or in darkness, physical, mental, or moral, man is the Eternal Pilgrim, as is each unit in every kingdom, the whole "host of Souls." Certain it is that the more light one has, the better he can see his way. But when the light ceases to shine, what is the Pilgrim to do? Can he keep to the path in darkness, and if so, by what manner of orientation is this a possibility?

In the dark, all roads are rough, so that "the pilgrim trips and karmic pebbles bruise his feet along the rocky path." No one seeks evidence of these aphoristic utterances, for each human being, high or low in the scale, is himself their certain witness—in his own experience and in his observation of his fellows. These are the universal facts, but what are the factors which produce them? The instruction given to the pilgrim is clear enough:

> These two, Light and Darkness, are the world's eternal ways; no devotee who knoweth these two paths is ever deluded; wherefore, at all times *be thou fixed* in devotion.

Considering this instruction, it becomes unmistakably clear that, quite regardless of its object, *devotion* means concentration of mind. This concentration may be induced or self-induced. If induced, it implies the paralysis for the time of the individual's own will. The continuation of the practice must as necessarily result in "darkness," so far as will is a factor. This kind of devotion constitutes what the profoundest of all psychologists—Pantanjali—denominates "meditation with a seed." What is its outcome? According to the same authority, this sort of concentration, since it is not contingent upon the will, must have some other basis: it "depends upon the phenomenal world." Such concentration can have no other issue than that which befalls the phenomenal world: the meditation with a seed "ends with the *indissoluble* element called primordial matter." The man, after having passed through every possible experience, returns to the source, the point of departure of the Pilgrim-Soul, in the same condition at the end as at the beginning—in darkness, which in its consummation means complete extinction of individual consciousness. This Soul must, therefore, "slumber in unconscious inactivity between the Manvantaras," or until a new period of evolution or "becoming" commences for all Souls—the "Cycle of Necessity, which neither Buddhas nor Christs can escape."

Man as we know him, or think we know him, is actually in one or another of the stages of meditation with a seed, each unit of the race, "caught in the webs of delusion." No wonder, then, that H. P. Blavatsky makes the assertion—"*Maya* or illusion is an element which enters into all *finite* things." The "seed," the maya, the illusion, which holds mankind fast in "the *bonds* of Karma" is the delusion of personality—that the Self in man is a self of matter. Whoever thinks of Self in terms of matter, regardless of the "*object* of his devotion," is the victim of what in the Orient has long been called Hatha Yoga.

"The confusion of tongues" is not just a biblical phrase, but the putting into a maxim the common experience of mankind during the reign of Kali Yuga. Oriental or Occidental yogis, seers, mystics and mediums of every description are so subject to this confusion that few indeed try to probe the depths of their natures to find its source or cause. That cause is confusion of mind, and as mind does not exist of itself, nor as a stable quality or quantity, we have to go behind the mind to find its root in the Soul itself. Since matter, mind, and Soul are alike derived from great Nature, one has to extend his power of perception from body and the world as mirrored by the outer senses, to the mind and the inner senses which reflect the subjective universe; from the mind to the consideration of consciousness itself as distinct from its reflections and refractions. That extension or projection of soul-power, then, which is all-embracing in scope, theoretically and actually, is the only one which includes all three worlds, all causes and all effects throughout the whole area of manifested existence.

That this range of the power of perception, of discrimination, of choice, of Will-born conduct is possible to any and every man of earth, is the real Communication or Message from the Divine Beings to the human being at every cross-road of the Path. Otherwise, of all men the philanthropist, the Disciple, the Christs and Buddhas of every race and creed, are the most self-deceived, the worst victims of their own illusions and delusions.

"But," demand both the careless and the thoughtful, "did you not assert a moment since that neither Buddhas nor Christs can escape the 'Cycle of Necessity'?"

The question must needs be given a dual reply, since it proceeds from two different points of view. The sceptical-minded have not yet entered within the circle which defines meditation even in its first stage. The casuist of any and every degree belongs in the class

of those whose minds are given over to "the exercise of thought without argumentation," which latter means impartial marshaling of the pros and cons of any given course of conduct, subjective or objective. They have no more will to learn or teach than a butterfly has in its sphere of existence—no past, no future, no concern over either, living only in the present moment.

But to the thoughtful man another answer must be given, and this quite without regard to the particular nature of his reflections. Why? Because all thoughtful men are within and not outside the "magic circle." Many, very many, of the leading minds of the race are caught and held in "the webs of delusion" even in this first, the "argumentative" stage of meditation. They have already reached a fixed conclusion on one and another of the fundamental problems of life, and, often quite unconsciously to themselves, assume an attitude of doubt, of distrust, of opposition to any proposition or discussion at variance with their own preconceptions. Thus what Patanjali calls the argumentative stage of meditation becomes to them the disputative, the contentious, a "defense" of one's own convictions, instead of mutual discussion and comparison for better understanding. What was intended to be a friendly consideration of problems quickly degenerates into dogmatic antagonism.

There is, however, a third class of minds, not numerous in proportion, but increasingly large in number, and increasingly important, not only to each other, but to those who look to them for instruction and guidance; increasingly important also for that reason to the "Buddhas and Christs" and Their genuine because informed Disciples. This class may be said to consist of those who have entered the second stage of meditation, called by Patanjali the "Deliberative." Among all those in this class there is both instinctive and conscious effort at "pondering in regard to whence have come, and where is the field of action, of the subtler senses and the mind." These have passed beyond the delusion that Karma, or "the field of action" is confined to what befalls from their environment of external circumstances and conditions. Whatever "happens" to them, they automatically or by conscious will-power make and maintain that "continuous adjustment of internal relations to external relations" of which the philosopher Epictetus was such an illustrious example, and which is due to "practices pursued in former lives."

These minds will not be diverted into side-issues internally any more than will the determined traveler physically be diverted into side-roads or cross-roads. If one such is met on any of the by-ways

of life, physical or metaphysical, it will be found invariably on scanning his journey, that he either lost his way because of false signs, no signs at all that he could read, or that he is merely making a necessary "detour." Such minds have already grasped that what enslaves most men is the fruitless attempt at the "continuous adjustment of external relations to internal relations." That great man and mind, Herbert Spencer, thought that the adjustment of self to circumstance is "the essence of life"—and carried it to its legitimate terminus, mentally as well as physically, for just before his death he announced his entire surrender to the gospel of despair—that death ends all. And so it does—for that personal life-cycle.

This means that even the purest personal self, the sublimation of the "self of matter," cannot pass beyond the "deliberative" stage of meditation during earthly existence, can after death only "slumber in unconscious inactivity" until the succeeding reincarnation. It is to this class of minds, nevertheless, that the Masters of Wisdom and the Adepts of every degree give more attention than to any other save only their accepted Disciples, or *Chelas,* as they are called in the East.

Perhaps the great truth that Christs and Buddhas cannot "escape" reincarnation may bear quite another interpretation than that placed upon the aphorism by those not yet Disciples. Perhaps the accepted renditions of the nature and mission of such exalted Beings are those issuing from the "lower self"—"personal" interpretations, while by the very words, Christ, Buddha, Master of Wisdom, is personified the "Self of Spirit." Perhaps Their Names and Forms and Missions are assumed to give mankind the living witness that, even as the Self of Spirit can by "Will and Yoga" permeate both the inner—and the outer—sense worlds, so likewise can the man of meditation pass, by means of the metempsychoses consequent on "the mystic power of self-ideation," from Darkness into Light—for "Higher" or "Lower," it is one and the same SELF throughout the journey of "the Pilgrim-Soul."

A SOCIAL IDEAL

If I knew of something which was useful to me but harmful to my family, I would banish it from my thoughts. If I knew of something which would be useful to my family but not to my country, I would try to forget it. If I knew of something which might have been useful to my country but harmful to Europe and the human race, I would consider it a crime.

—MONTESQUIEU.

SCIENCE AND THE SECRET DOCTRINE

The Dilemma

AN odd reluctance characterized the opening of the present European war, giving the impression of masses on both sides which have been forced into hell, not of their own usual eager will, but by causes unthinkingly set in motion and now mutually regretted. But it shows more than that. There are some signs that not only can the masses learn—even though too late—but that even some use of past experience can be made by scientists and preachers. In the past, the facility with which science has turned from Minerva's feet to embrace the bloody greaves of Mars has been equalled only by the facility of the church's abandonment of Christ for Jehovah.

This time the enthusiasm of both turncoats is dim. The church seems in some doubt as to just what to pray for, or, in fact, whether to pray at all; and finally ends in safely praying for peace—without too closely specifying what sort. Cassandra has been crying through the pages of the scientific journals for months, and at times has even almost forgotten the conventional apologetics.

The possibility of international co-ordination of scientific efforts for peace has been in the air for some time. Such a proposal was made to the British Association in 1937, and this year was again stirred up by a letter addressed to that body by a journalist. The New York *Times* of Oct. 17, 1938, called for

> . . . an organization which shall indicate how the objective attitude of the laboratory may be applied in governing a people, in breaking down prejudices, in preventing war, in solving problems that mean progress not in one country alone but the world over.

The Baltimore *Sun* received the proposal coolly:

> It remains to be seen whether, with the best will in the world, even the scientists, who, after all, are citizens, too, will be able not only to pool their intellectual resources but agree upon how these resources are to be used, and who is to use them and for what ends.

This argument is not new. In 1650, when war was already being defined in modern terms as "measures reluctantly undertaken to compel friendly relations,"

> . . . the commander-in-chief of the Polish army, Colonel-General Kasimir Siemienowicz, even evolved a philosophy of chemical warfare. He related that in his time it was a custom that "all those who wished to practice the art of pyrotechny were required to swear

an oath that they would never manufacture any globes containing poison—and never make use of such for the slaughter of men." But, he continued: "It is nevertheless quite right and reasonable and proper for the most pious Christians among us to use these projectiles, not, indeed, against other Christians, but against Turks, Tartars, and other infidels."

Noble as were those sentiments, a keen student might detect therein a certain hiatus of ethical continuity which may have been somewhat indicative of the then future of Europe. In 1670, Father Francesco Lana had some concerns over his invention of an airship, credited with being the first. He wrote:

Other Difficulties I see not, which may be objected against this Invention, besides one which to me seems greater than all the rest, and that is, That it may be thought, that God will never suffer this Invention to take effect, because of the many consequences which may disturb the Civil Government of men. For who sees not, that no City can be secure against attack, since our Ship may at any time be placed directly over it, and descending down may discharge Souldiers; the same would happen to private Houses, and Ships on the Sea: for our Ship descending out of the Air to the sails of Sea-Ships, it may cut their Ropes, yea without descending by casting Grapples it may over-set them, kill their men, burn their Ships by artificial Fire works and Fire-balls. And this they may do not only to Ships but to great Buildings, Castles, Cities, with such security that they which cast these things down from a height out of Gun-shot, cannot on the other side be offended by those below.[1]

About 1500 Leonardo Da Vinci, inventor of the first submarine, wrote:

How by an appliance many are able to remain for some time under water. How and why I do not describe my method of remaining under water for as long a time as I can remain without food; and this I do not publish or divulge on account of the evil nature of men who would practice assassination at the bottom of the seas, by breaking the ships in their lowest parts and sinking them together with the crews who are in them; and although I will furnish particulars of others they are such as are not dangerous, for above the surface of the water emerges the mouth of the tube by which they draw in breath, supported upon wine-skins or pieces of cork.[2]

Would that modern scientists had that much responsibility! In 1937, the retiring President of the American Association said:

I know of no matter of greater concern to men of science and the general public than science in its relation to ethics. I know full well that there are many scientific specialists who maintain that

[1] *Science*, Aug. 25, 1939.

[2] *Science*, Dec. 22, 1939.

> science has no concern with ethics, its sole function being to seek the truth concerning nature irrespective of how this truth may affect the weal or woe of mankind. They may recognize that the use of science for evil threatens peace and progress, but they feel no responsibility to help avert disaster.[3]

Science approvingly prints a 1938 editorial from the *Washington Post*, which runs in part:

> For science has made an enormous contribution to the forces that today are threatening to wreck our civilization. Men in laboratories have unloosed powers that mankind is not yet able to control intelligently. New inventions intended to relieve drudgery and toil have been perverted into instruments of destruction. Our greater facilities for the production of goods have, paradoxically, accentuated the problem of economic instability for millions of families. . . . It is not enough for the world's leading thinkers to provide the tools of progress. A much bigger task is to teach mankind to use those tools.
>
> There is a growing awareness in the world that the successful search for truth does not assure the advance of civilization. If the findings of science should lead only to economic changes, without any comparable development of social, cultural and spiritual qualities, the ultimate result might be only disillusionment and chaos.[4]

The Post thinks that proper control can be acquired only by the co-operation of other enlightened interests.

Dr. Harold G. Moulton muses over the worries of Carrel and Fosdick:

> The enormous advance gained by the sciences of inanimate matter over those of living things is one of the greatest catastrophes ever suffered by humanity. The environment born of our intelligence and our inventions is adjusted neither to our stature nor to our shape. We are unhappy. We degenerate morally and mentally. The groups and the nations in which industrial civilisation has attained its highest development are precisely those which are becoming weaker. And whose return to barbarism is the most rapid. But they do not realize it. They are without protection against the hostile surroundings that science has built about them. . . .
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> This is the supreme question before us. All other problems that confront us are merely its corollaries. And the necessity of a right answer is perhaps more immediate than we realize. For science is not standing still. . . . There lies in full view before us a realm of discovery in physical science till now untrodden by mortals even in their dreams.[5]

"Even in their nightmares" would have been still better.

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[3] *Science*, Dec. 31, 1937. [4] *Science*, Feb. 4, 1938. [5] *Science*, Feb. 25, 1938.

An engineer's misgivings are pronounced by Prof. R. V. Southwell, though his conscience does not seem to hurt quite as much as some of the others, and he ends up with the ancient, comforting orthodox ending: "after all, there are no ghosts!"[6] ("It really isn't *our* fault.")

Dr. Wesley Mitchell enumerates at length the woes brought on by uncontrolled science, laying the trouble to the greater difficulty and hence lack of development of the social sciences.[7]

Another adverse opinion is worth quoting because it is exactly the same as our own and that of H. P. Blavatsky—except for the dubious meaning of the word "God":

> It is a clever, cynical and hard-bitten world that science is making, one in which the idealistic and the spiritual are bound to have a diminishing place. Viewed against a background of classical education science has been a disadvantage to our society. If the most important questions of mankind are those concerning spiritual relations with one another and with God, then science is not to be taken seriously. Through dazzling discovery and successful practical application science gives a sense of power that is both demoralizing and dangerous. We are given an enormous driving force that does not permit us to be as bad or as foolish as we could be with impunity down to the middle of the eighteenth century. The impact of science on our morality, individual and national, is evil unless we rise successfully to the test of our character and moral traditions. Science has taught us analysis, but we have had as yet no large-scale and equally successful synthetic constructions that bear on human conduct. The mass mind seizes and acts upon perverted ideas of scientific generalization. Darwin's "survival of the fittest" encourages men to be brutal; Freud's "don't repress," to indulge their passions; Einstein's "relativity," to think that truth doesn't exist and doesn't matter.[8]

Dr. Harlan True Stetson thinks that "Science finds itself in a strange dilemma. It has made life easier and added to man's happiness and at the same time, in the event of war, it clouds the future with unspeakable horrors."[9] He concludes with the suggestion that the American Association for the Advancement of Science may be the proper body to inaugurate a scientific control of science. Frederick Osborn asks how far a "science of man" is "possible"—a significant question, since all the others will agree that it is essential. He thinks, not too positively, that it may be possible, given certain conditions, but also thinks religion is essential along with it.[10] Dr.

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[6] *Science*, July 14, 1939. [7] *Science*, Dec. 25, 1939. [8] *Science*, Oct. 6, 1939.
[9] *Scientific Monthly*, January, 1939. [10] *Scientific Monthly*, November, 1939.

Karl T. Compton deals with the role of religion in a scientific world. His views may be summed up in the following:

> All the preceding remarks bear on the much-discussed question: "Is there a conflict between science and religion?" I believe it may be helpful to point out that the answer to this question depends upon the claims of the religion. If a religion essays to make pronouncements regarding the materials, laws and forces of nature, whether laws of physics or astronomy in the inanimate world or laws of biology or heredity in the animate world, then the religion will certainly come sooner or later into conflict with advancing knowledge of science, and will certainly be the loser in the conflict.[11]

In other words, religion does not conflict with science so long as it avoids anything rational, and religion must always lose when it does deal with anything rational. Without question, Dr. Compton would call Theosophy a "religion," and its unbroken series of victories over mistaken scientific ideas for the past twenty-five years would not bother him because he has not read about them. He closes with a remark which leaves us—as is usual with such pronouncements—thoroughly in the dark as to just what he means by "religion":

> Science has therefore had tremendous influence in shifting the emphasis of religion from the physical to the spiritual world and we must not shut our eyes to the possibility of still further powerful influence of this sort.
>
> Science has thus contributed to the making of religion into a developing, dynamic spiritual force. I believe that the principal influence of science upon religion has been along the following lines. First, to break down "authority" and substitute reason based upon facts of observation. Second, to eliminate superstition and chicanery from religion. Third, to doom any religion of the static type and emphasize the necessity of a continual development of religious thought to keep pace with and interpret the increasing knowledge regarding all matters which pertain to man's activities and environment.

This is sheer gibbering, with all respects to a man who knows well enough how to express himself intelligently in his own field. How can the complete emasculation of religion, to the point where it has lost all practical influence on human conduct, be "making it into a developing dynamic, spiritual force"? If it is the legitimate role of religion to "keep pace with and interpret the increasing knowledge regarding all matters which pertain to man's activities and environment," and if religion must always come into conflict with and lose to science whenever it "essays to make pronounce-

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[11] *Scientific Monthly*, January, 1940.

ments regarding the materials, laws, and forces of nature . . . biology or heredity in the animal world," then we had better forget religion altogether, for such religion could be nothing but a servile reflector of scientific speculation.

None of this discussion makes sense, because it postulates conditions in the scientific world which have never existed and never can exist. It assumes that a substantial majority of scientists shall, first, be willing to put humanity before their personal interests, and second, that those upon whom they depend for their livings and laboratories shall do the same things. Few scientists meet the first qualification; none can assure the second. And almost all are victims of the complete paralysis of the spiritual will which follows upon the adoption of a fundamentally materialistic viewpoint. Not in a single one of the foregoing discussions appears the faintest suspicion of a higher destiny or higher nature in man than the material—unless Compton's obfuscations can be counted as such; nowhere appears any idea that man can have any higher destiny than to be a successful animal, his supreme practical achievement to "eat, drink, and be merry," his ultimate ethical achievement to do this without harming others.

So long as that is all the scientist has to offer, the mass mind of man—ten per cent outright criminal and eighty per cent irresponsible on its own record—will continue to use the scientist to suit its own animal will. The science of the only bygone age which paralleled our own development solved its problem by the complete reduction of itself and its civilization to a faint traditional echo. *Knowledge* survived and its "practical" applications have ever since been held closely guarded from human lunacy, up to this our present day when the modern intellectual burglar is succeeding in jimmying once more Nature's lethal safes.

The scientific dilemma is not academic to the theosophists of the coming generation, who may find themselves in the scientific ranks in ever-increasing numbers, and will, on the material side, find themselves as subject to economic necessities as any of the quoted unfortunates. But they can bore within as did the theosophists of the Dark Ages, who so often found shelter under the very ægis of churchly orders. This helpless unrest in the scientific world shows that when true leaders with *knowledge* appear, they may, if they walk circumspectly, find surprising welcome. There is an unconscious call for them in the following:

> And, if, further, the scientist, the moralist, the philosopher and the mystic can together search out the heights to which man is

> capable of climbing, the task of mapping out the path by which the toilsome and laborious ascent may be made is not beyond the power of science, in its wider sense, to perform. . . . In this matter we are in grave danger. One contemplates with disquiet and apprehension the increasing stream of narrow specialists who issue from the institutions of learning into a world that is seeking for other counsel than they can give. We need the men who are imbued with the scientific spirit and who have access to the inner courts of the temple of the mind and the spirit of man. That kind of man must be cultivated in our halls of learning. Can it be that we are failing in our task?[12]

This writer, unknown to himself, is asking for what only Theosophical education can supply. Can Theosophical *educators* supply it? That is *our* problem.

EX ORIENTE LUX

Precisely in that period of our own intellectual evolution when faith in a personal God is passing away—when the belief in an individual soul is becoming impossible—when the most religious minds shrink from everything that we have been calling religion—when the universal doubt is an ever-growing weight upon ethical aspiration—light is offered from the East. There we find ourselves in presence of an older and vaster faith—holding no gross anthropomorphic conceptions of the immeasurable Reality, and denying the existence of soul, but nevertheless inculcating a system of morals superior to any other, and maintaining a hope which no possible future form of positive knowledge can destroy. Re-enforced by the teaching of science, the teaching of this ancient faith is that for thousands of years we have been thinking inside-out and upside down. The only reality is One;—all that we have taken for Substance is only Shadow;—the physical is the unreal;—*and the outer-man is the ghost.*

—LAFCADIO HEARN.

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[12] *Science*, Sept. 23, 1938.

YOUTH-COMPANIONS' FORUM

WHY must forms die? Would it not be better if forms never died, but were constantly improved, without having to disintegrate?

(a) A general answer to the first part of this question is found in *The Ocean of Theosophy:*

> This quarternary or lower man is a product of cosmic or physical laws and substance. It has been evolved during the lapse of ages, like any other physical thing, from cosmic substance, and is therefore subject to physical, physiological, and psychical laws which govern the race of man as a whole. Hence its period of possible continuance can be calculated just as the limit of tensile strain among the metals used in bridge building can be deduced by the engineer. Any one collection in the form of man made up of these constituents is therefore limited in duration by the laws of the evolutionary period in which it exists (p. 33).

In "The Elixir of Life," an article published by H.P.B. in the *Theosophist,* it is stated:

> . . . far even as those superior Intelligences [the Masters] have investigated, . . . and remotely as they may have searched by the help of inference and analogy, even They have failed to discover in the Infinity anything permanent but—Space. *All is subject to change.* Reflection, therefore, will easily suggest to the reader the further logical inference that in a universe which is essentially impermanent in its conditions, nothing can confer permanency. Therefore, no possible substance, even if drawn from the depths of Infinity; no imaginable combinations of drugs, whether of our earth or any other, though compounded by even the Highest Intelligence; no system of life or discipline though directed by the sternest determination and skill, could possibly produce Immutability.

An "immortal" body would not only be undesirable—affording no rest to the soul—but impossible under law. "Body" is simply the name for a certain set of limitations. Would we bind ourselves forever to this set of limitations?

Since the outer form obeys the laws of the world into which it was born, it must die and disintegrate. "As a man throweth away old garments and putteth on new, even so the dweller in the body, having quitted its old mortal frames, entereth into others which are new." We cannot use old clothes or an old pair of shoes forever. We must abandon the worn-out form, rest, and then assume a new body. But during the whole process of successive reincarnations, the

true form, held in the Mind, does not perish. It remains and is added to and improved in the sense of increasing its power and range of perception. Finally, when the stage of Adeptship is reached, the man acts in perfect accord with nature's laws; he builds himself a permanent astral body which lasts for a whole cycle of evolution. However, even this must disappear in time since all forms are but expressions of that which is Potentiality of form. It is this Potentiality which is real, for it never goes out of existence, not even during Pralaya, when it preserves "the plan of every future Cosmogony and Theogony." (*S.D.* I, 1.)

(*b*) Forms must die because anything that begins in time must end in time. There is only One Principle that endures forever, and that is Life itself, which each one truly *is*. If the questioner is referring to the physical form, we can see that our physical body is constantly changing, and thus it is the least permanent of our vehicles, although knowledge can increase the life of the body to nearly four hundred years (*Ocean*, p. 33).

As for the Real Man, how could individuality endure through personality after personality unless there is a vesture of soul? Or how could the Master realize his immortality—which means without beginning or end—unless He has an immortal "form" of self-knowledge? *The Friendly Philosopher* says (p. 237):

> If the planet or solar system began in a state of primordial substance, or nebulous matter, as Science calls it, then we must have had bodies of that state of substance. In that finest substance are all the possibilities of every grade of matter, and hence it is that within the true body of primordial matter all the changes of coarser and coarser substance have been brought about; and within that body is all experience. Our birth is within that body. Everything that occurs to us is within that body—a body of nature which does not change throughout the whole *Manvantara*.

We need not be too concerned about our forms, for we shall always have the vehicle that we need for the further progress of the Soul. Bodies of whatever kind, are but instruments for the Real Man.

Can we not check Theosophy with scientific ideas, or by some truth in teachings other than Theosophy, or must all truth be measured by its agreement with the Theosophical teachings?

(*a*) Theosophy is capable of universal application, but this is not true of either religion or science. For instance, religion appeals to the feeling side of man, but not to his reason, which it both defies and benumbs. Science, on the other hand, noting accurately physical

facts—that is, effects—can satisfy somewhat the reason, but gives no substance of ethics to the higher feelings in man. When we have studied the principles of Theosophy, and have applied them, know them for ourselves, we have a "yard-stick" with which to "measure" truth wherever it may be found, even when it lies concealed beneath the chaff of false ideas.

(*b*) An answer to a mathematical problem can be checked by anyone who knows the fundamental principles of that science; and given a problem, the solution may be found by using those principles. Mathematics is based on principles which are self-evident, universal and unchanging, and Theosophy is the mathematics of the soul.

Can we check Theosophy with scientific ideas or by some truth in other teachings? When it can be shown that the sciences and other teachings are based on fundamental principles which are self-evident and can be applied universally, then we might say that a criterion for Theosophy has been found. Are present scientific ideas of this nature? Even the casual student knows that there are many conflicting and confusing ideas in scientific thought and that most of the theories and interpretations have yet to be integrated around basic principles. As to the teachings of the innumerable religious sects, creeds, societies and movements in the world, a little study shows that they are but the speculations of individuals, seldom providing any principles by which their claims and statements made may be tested.

Truth is universal and always explains. Truth always agrees with truth and disagrees with falsehood. Theosophists have never asserted any dogmatic or "ready-made" answer for the great questions and problems of life, but they offer the means by which the seeker after truth can solve *all* questions. Like mathematics, Theosophy postulates certain axioms and invites the student to study and use them, to *seek* the truth by applying the fundamentals of Theosophy.

(*c*) It is necessary to check any idea or hypothesis by that which we know to be true. When one sees the unity of the Theosophical teachings, it becomes equally evident that the scientific, religious and philosophical doctrines of the day are incomplete if not false. Theosophy will withstand any fair trial. Can the same be said for any other doctrine? Actually, it is not Theosophy *per se* that needs testing, but rather our own understanding of it. For it is the misunderstanding, due to the influence of preconceptions, which has ever handicapped those who have failed to grasp its truths.

Were we continually trying to check Theosophy with every theory or "ism," it would merely mean that we had failed to recognize Theosophy for what it is—a basis for studying out the meaning in experience. Let us then, first of all, obtain a true basis, a criterion by which we may recognize Truth wherever found. That basis enables one to perform his own *scientific* experiments in the realms of Nature and of Man.

If evolution is a fact, why should there not be a progressive development of truth among men? This would be consistent with the idea held by some religious reformers of an ever-increasing revelation.

There is progressive development of truth among men, but evolution does not apply to truth itself. The evolution applies to men's comprehension of truth. To say that truth "evolves" would be like saying mathematics itself evolves as the student gains a greater understanding of that science. Mathematics as a formulation of laws simply *is*. Our knowlege or ignorance of a fact does not add to or subtract from its reality. Madame Blavatsky showed this to be true of human conceptions of Deity:

> The evolution of the GOD-IDEA proceeds apace with man's own intellectual evolution. So true it is that the noblest ideal to which the religious Spirit of one age can soar, will appear but a gross caricature to the philosophic mind in a succeeding epoch! The philosophers themselves had to be *initiated into perceptive mysteries,* before they could grasp the correct idea of the ancients in relation to this most metaphysical subject (*S. D.* I, 326).

Increasing revelation, further initiation and instruction, from whom? From teachers who know still more. All learning is nurtured by the help of conscious beings, more experienced, wiser. Beings vary, their understandings vary, but Truth does not.

THE ABSOLUTE

The Absolute, or Unconditioned, and (especially) the Unrelated, is a mere fanciful abstraction, a fiction, unless we view it from the standpoint, and in the light of, the more educated pantheist. To do so, we will have to regard the Absolute merely as the aggregate of all intelligences, the totality of all existences, incapable of manifesting itself except through the interrelationship of its parts, as it is absolutely incognizable and non-existent outside its phenomena, and depends entirely on its ever-correlating forces, dependent in their turn on the One Great Law. —H. P. BLAVATSKY.

PHILOSOPHERS AND MEN OF ACTION

WORLD history reveals two great classes of men, whose functions in the service of mankind have been fundamentally different. The philosophers who weave ideas into patterns suggestive of action to others are one class. "Men of action" are the other class, the leaders in both war and peace,—who organize efforts and accomplish immediate rather than indirect results. Historians dutifully trace the background of ideas behind a revolution or great social change to the philosophers, and recount the heroism of the men whose philosophy was action. But not all philosophers are famous for a published system of ideas, nor has every man of action led an army or a government. All men incline either toward the pole of action or toward the pole of contemplation; all men are both philosophers and men of action.

Krishna in the *Bhagavad-Gita* counsels his pupil that while contemplation is in itself action, there are times when one who desires to be a helper of humanity must engage in action more directly, in fulfillment of duty. The progress of the soul entails both contemplation and the right performance of action. A life of quiet meditation may serve as assimilation for past lives of action or as preparation for action to come. These cycles of contemplation and direct activity must often alternate in the incarnations of every soul, just as within a single lifetime a period of intense action is often followed by outer quiescence and inner accomplishment.

How difficult it is for one of philosophic and reflective mind to understand the warrior, the principles of whose nature "impel him to engage" wherever there is a cause worthy of his strength and resourcefulness! The man of action, in his turn, used to acting decisively in the face of emergency, often feels that the mere "thinker" is remote from the realities of life. Were men of either mold to view all fellow beings as companions on the path of cyclic progress, it would be far less difficult for them to understand those of different temperament. From such a perspective, neither class of men would evaluate his fellows by externalities, but would look rather to the nature of the inner man. It would be recognized that when motive is beyond reproach, the line of natural endeavor followed by any individual is *his* path of duty. Abilities and talents indicate the type of service to humanity most necessary to soul-progress in any particular lifetime.

Rarely, however, does either the philosopher or the warrior understand "action in inaction," and "inaction in action," unless he has himself experienced in part the life of the other. The philosopher whose broad sympathies involve him in human relationships, ending the seclusion of intellectual speculation, becomes acquainted with the roots of action from which both noble and ignoble deeds spring. The man of deeds, who learns to contemplate quietly the issues of each concrete decision, has direct experience of the clairvoyance brought by meditation. Without experience of the opposite pole of endeavor, it is easy for the philosopher to become absorbed in splendid reveries, isolated in the "ivory tower" of his own mental creations; it is easy for the warrior to "act" so furiously that all his energy is spent in *"doing,"* too little given to evaluating the purpose for which he acts.

The perspective of Theosophy shows man to be engaged in activity on seven planes of being. For man, individually considered, the purpose of this diversified soul-experience is the perfection of certain instruments, through which, ultimately, the nature of all things in manifestation may be discerned. Soul knowledge is acquired as man utilizes his instruments to contact and understand other souls pursuing an evolution of their own on corresponding planes of being.

The number of incarnations during which this universal process of learning takes place is immeasurable. Hence, specific lives offer particular opportunities for the development of certain faculties. The psychic nature requires a certain kind of development, the intellect, another. The lives which constitute our physical and psychical make-up must be refined and impressed through the impulse of the higher intelligence, as yet imperfectly incarnated. As suggested by the *Bhagavad-Gita,* the sum total of lives attracted to the physical aura by past affinities represent three kinds of impulsion, learned through past experience in former cycles of evolution. One form of life partakes of the quality of darkness and ignorance; other "lives" impel to action, and still other lives, impressed with the quality of goodness, impel man towards virtue.

As W. Q. Judge has written: "the path lies from Tamas, up through war, ambition, and aspiration, to Sattwa, or truth and stability." To the man traversing this path, a choice is presented. He can become so absorbed in the virtue he has attained that the path of action no longer beckons, or he can realize that what we call "the virtues" properly represent instruments or bases of action to be used for the betterment of the whole. But those who *understand* the qual-

ities of indifference, ambition and goodness, are no longer "impelled to engage by the qualities." They engage in the world of action from conscious choice.

The men of action, then, whose brave deeds fill the pages of history, may belong to either of two classes. Those who have achieved knowledge of inaction in action through past experience act only when there is opportunity to fulfill a duty to the body corporate of mankind. Others, still bound up in the quality of action *per se,* follow the path of ambition and aspiration, sometimes attracted to a worthy cause, sometimes to one unworthy. These men of action must become philosophers, men of contemplation, before they reach that inner stability which comes from knowledge of "the three qualities."

To have attained the quality of sattwa by rising above the qualities of indifference and ambition does not mean that the lessons of soul-evolution on earth have been learned, the task finished. A basis for action achieved, action yet remains to be done among those mortals who have failed to distinguish between "the three qualities." For the man who has reached above them, there may be much internal action, much of contemplation and meditation, before he pushes forward to the first line of battle, there to meet fellow beings on common terms in the experiences of daily life. He may feel all the attraction of the lower qualities of nature, yet remain internally at the vantage point of clear perception. He feels again directly the hopes and fears, the inarticulate longings and aspirations of his more ignorant fellows, but is yet able to press on to action, unconcerned for himself in the results. His younger brothers must be led, helped, instructed, and he must be the one to carry out those decisions in the world of strife which will lead to the manasic awakening of the multitudes.

The Karmic law of development determines how fully such an one may enter again into strife and conflict, how much he must continue on the path of preparation. Whether he be philosopher or man of action, he is drawn back to earth, for even *mental* action requires the objectivity of the phenomenal world, the substance for work of the mind. In either case, if he falters not from high resolves previously taken, disdaining the line of least resistance which is offered in each life by absorption either in action or contemplation by itself, he is fulfilling his own destiny and doing his part in unfolding the larger destiny of all.

ON THE LOOKOUT

Insect Language

Another episode in the romance of that strange little co-worker, the bee, is related in the New York *Times* of March 10. Prof. K. von Frisch of the University of Munich, while observing bees which were marked at a honey dish placed to attract them, and then traced back to the hive, discovered that the tiny creatures use a definite system of communicating news of food. The articles quotes the German naturalist:

> "First the bee delivers the honey or sugar water found and sucked up on our table to other bees in the hive," says he. "Then it begins to dance. On the same spot it turns round and round in a circle with quick, tripping little steps, once to the right, once to the left, very vigorously, often half a minute or a full minute. The dance is sometimes repeated on another spot."
>
> The attendant bees become highly excited, trip behind the dancer, following his movements and keep their feelers as close as possible to his body. "Suddenly," the observing von Frisch recounts, "one of the following bees and then another turns away, cleans its wings and antennæ and leaves the hive. A little later these new bees appear at the feeding ground. After they return home, they, too, dance, and the more bees that dance the more appear at the feeding ground. It is clear that the existence of food is communicated by the dance in the hive."

Dance of the Bees

Through further observations (it is related in the *Times* of July 25, 1937), Prof. von Frisch learned that in the case of a man-made feeding station, such as a glass dish of honey, the bee-discoverer is not able to communicate the location of the feast to the other bees, which search in all directions until they find it. But if food is placed on a certain type of flower, the bees go directly to that flower, ignoring all others. This is true even of flowers which naturally produce no honey, such as phlox. Prof. von Frisch comments:

> The language of the bees is still more perfect than has been shown up to now. The homing bee dances only when there is an abundance of food. When there is a scarcity of food or it is difficult to obtain, the bees do not dance after homing. They continue to collect the food and deliver it to the other bees, but they do not dance, and so they do not attract new worker bees to their feeding place. . . .

> But one more thing still—the dances depend not only on the quantity of food but also on its sweetness. If we feed the bees with sugar-water of a very high concentration, the dances are vigorous. If the concentration is diminished, the dances are continued, but less vigorously. If the concentration is still further diminished to a certain point, the collection of food is still continued, but there are no dances in the hive, although there is plenty of food.
>
> In natural conditions this is very important. For when various kinds of flowers with different concentrations of nectar begin to bloom at the same time, and are discovered by scout-bees belonging to the same hive, the bees discovering the flowers with the best nectar dance the most vigorously, and attract the largest number of worker bees for the best flowers.

Perfect Social Order

In a review of *The Sacred Bee,* by Hilda M. Ransome, a book recounting the legendary lore associated with these little animals, Ruth Suckow, apiarist and novelist, remarks: "The life of the bee long outdates that of mankind . . . Little is really known even today, of the origin of that pure specimen of a collective community we call the hive." (New York *Herald Tribune,* June 13, 1937.) Theosophy teaches that the bee, along with other finished types, was carried over into this cycle from another planetary chain, and is not a product of the present evolutionary period. Bees, then, are a living record of the social intelligence developed almost to perfection by beings who lived countless æons ago. What H.P.B. says of the ant in *Transactions* doubtless has equal application to the bee:

> In relation to its own plane of conception and perception, the ant has as good an intellect as we have ourselves, and a better one; for though it cannot express it in words, yet, over and above instinct, the ant shows very high reasoning powers. . . . [However], man is a perfected animal, the vehicle of a fully developed *monad,* self-conscious and deliberately following his own line of progress, whereas in the insect, and even the higher animal, the higher triad of principles is absolutely dormant (pp. 13-15).

Converging Social Evolution

Major R. W. G. Hingston, a naturalist whose theories are much appreciated by theosophists, has noted that the caste system and activities of a certain species of ants are organized on exactly the same principle as that of the social life of a tribe of termites; and, be it noted, termites and ants are unrelated, the former being a kind of cockroach (Order Neuroptera), while ants belong to the Hymenoptera, which includes bees and wasps. Yet, to an aston-

ishing detail, even to the mushroom gardens tended by both species, to their plan of nest-making and their symbiotic relations with other forms of insect life, these ants and termites follow the same pattern of existence. Major Hingston observes: "Is it not amazing that such complexity and detail should have come into existence independently without ever having had a common source?" It would, indeed, be "amazing," were it the fact; but as the *Secret Doctrine* teaches, "Man is the *alpha and the omega of objective creation,*" and if the vegetable kingdom today mirrors the procreative processes of primeval mankind (*S. D.* II, 116-17), why should not the life of insects be a memorial of past cycles in the social evolution of human beings? Surely, if "the human type is the repertory of all potential organic forms, and the central point from which these latter radiate" (*S. D.* II, 683), all forms of social organization in the lower kingdoms must have a similar origin.

MEDICAL ADMISSION

An interesting note on vaccination appeared in the November, 1939, letter of the A.M.A. *Journal's* Finnish correspondent. He writes of the "great uneasiness" caused by post-vaccinal disease in European countries, naming Holland and England, and reports that cases of encephalitis which first developed in Finland following vaccination were a cause of widespread neglect of vaccination in that country. Thereupon Finland passed a new law, effective Jan. 1, 1937, its provisions reflecting experience with diseases of the central nervous system as sequels to vaccination. This law requires wholesale vaccination of children before the age of two, on the supposition that encephalitis is less likely to occur at that age. While the number of vaccinations rose immediately, in accordance with this legislation, the Finland correspondent deplores that "five new cases of acute disease of the central nervous system should follow in 1937, the first year of the operation of the new vaccination law."

While five such cases out of a total of 162,877 Finnish children vaccinated in that year may seem to be an insignificant proportion, it should be realized that this effect was acute and immediate; other sequels may develop later in many other of these children, and never be attributed to vaccination at all. Doctors are aware of the possibility that filterable viruses may be present in the body for a long time without noticeable effects, and then cause the outbreak of some disease. Encephalitis, among other diseases of obscure origin, is attributed to a filterable virus.

Expose of Serum "Racket"

Students who wish to inform themselves further on this subject should read "Serums—Do They Cure or Kill?" by Dr. Emanuel Josephson in the December, 1939, and January, 1940, issues of *Physical Culture*. The facts presented in this article are drawn from "authoritative" medical sources and convict many members of the medical profession of "colossal stupidity and pathological blundering," to say nothing of the conscienceless exploitation of thousands of trusting human victims. Meanwhile, orthodox medical opinion continues to ignore the successes of doctors who treat infectious disease by natural means, who refuse to pervert the bloodstream of their patients with injections of alien substances from the animal kingdom. Children *can* be brought through diphtheria without toxin-anti-toxin, as many mothers as well as physicians are able to testify. And even the epidemics of infection in great cities can be wiped out by means of sanitation and disinfection. This is proved by the records of medical history.

The Only "Sure Cure"

So long as the majority of practitioners are content to accept the usually doubtful and misleading claims of the serum manufacturers, so long will there be countless sufferers who seldom suspect that their pains are a direct outcome of "shots" for this, that, or the other complaint. The only solution is knowledge—knowledge of the true laws of healing, which have application to man's psychic and moral life even more than to the physical. The false therapy of artificial immunization is an ignorant reflex of the belief that man is a higher animal; not until the soul is again recognized by the art of medicine—as it was in the days of Hippocrates—will there be much hope of eliminating these degrading practices. For this reason, Theosophists, while objecting strenuously to vaccination whenever Karma brings the problem to their doorstep, devote their chief energies to the spread of true ideas, confident that when knowledge is once again established in the world, these lesser problems will melt away.

"Scapegoat Device"

The ancient truth that anger causes loss of discrimination is in itself of little interest to the modern journalist, but let this truth be dressed in the authority of a new scientific discovery, and headlines will proclaim it to the world. The *Science News Letter* for March 9

reports the following conclusion of two Yale psychologists, Drs. Neal E. Miller and Richard Bugelski:

> The frustration of being forced suddenly to abandon plans for a pleasant evening caused a group of young men to exhibit increased hostility toward the people of a far-away nation which had nothing at all to do with their disappointment. Unknown people were made the scapegoat for a personal annoyance.

The experiment on which this statement is based was conducted with a group of young men at a camp. First, their attitude toward the people of this distant country was ascertained; then, at a time when they had planned to attend "bank night" at a local theatre, the men were subjected to a boring test so difficult that every one of them was bound to fail miserably. The final step of the experiment was a second examination of their feelings, which revealed a definite increase in hostility toward the people of the far-away nation, simply because of the personal irritation caused by the test and the loss of anticipated pleasure. Another group of young men who were not subjected to these annoyances, but were simply questioned twice about their sympathies toward the same nation, showed no change in attitude.

PROFESSION OF LIES

This tendency to blame our discomforts on others who may be wholly innocent, modern psychologists have named the "scapegoat device." Dr. Miller points out how propagandists exploit this human weakness:

> In ordinary social living [he writes], men and women suffer frustrations especially when they are unemployed or are compelled to accept a reduction in pay. Their anger can spread to scapegoats in the same way that the anger of the men in the camp spread to the people of a foreign country. It is one of the functions of propaganda to induce people to use as scapegoats innocent foreigners who, though not necessarily responsible for the frustration, are made to serve as targets for aggression.

As with most experiments in psychological research, this investigation only adds to knowledge of the dark side of human nature, long cultivated by the advertising fraternity, and more lately become a matter of "scientific" interest. In recent years, some of the larger advertising agencies have retained the services of professional psychologists, and the techniques of "copy appeal" and other forms of persuasiveness in modern advertising can in many cases be traced directly to a theory of human response founded on an experiment like that conducted by the Yale professors.

Modern Sorcery

These practices are simply black magic—the deliberate interference with the will of another human being for a selfish end. The clever writers who compose the honeyed paragraphs of modern advertising are just as guilty of perverting the truth as any politician who spreads lies about his opponents while making impossible promises on his own account. Some years ago, Dr. George Hartmann of Columbia conducted an experiment indicating that "it costs $3 to win a party voter," that the appeal to unreasoning emotion is by far the most effective means, and that this kind of political persuasion for good or ill "does more to influence people's knowledge and attitudes . . . than all the formal educational apparatus of our time." (Theosophy XXV, 136.) A recent work, *Propaganda for War,* by H. C. Peterson (University of Oklahoma Press, 1939), shows that exactly the same technique is used to incite a people to belligerence. "All propaganda arguments," says this writer, describing the propaganda of the last war, "made direct appeals to the emotions." In the last analysis, emotion is the common denominator of propaganda. "It is the statement of a case in such a way that others may be influenced. In so far as its use against any enemy is concerned, the subject matter employed must not be self-evidently propagandist. Except in special circumstances its origin should be completely concealed." Propaganda, in short, seeks to thwart the discrimination of the propagandized, while spreading ideas partially or wholly untrue.

While Rome Burns

Such uses of the spoken and printed word are an ultimate betrayal of the people by those in positions of influence and authority. Instead of using the powers of mind to work for peace and mutual understanding, the Manasa, the *leaders* of the people, are spreading the poison of suspicion and hatred. Many were the cultured victims of great uprisings in the past, who could not understand what *they* had done to deserve the vengeance of the ignorant masses. The revolutions in France and Russia were a physical reaction which burst the bonds of material servitude; but when the millions whose psychic natures have been held in subjection—kept in a perpetual state of unsatisfied longings, and periodically goaded into the fury which war demands—when the great masses of average mankind realize how they have been exploited as mere domestic animals, as "consumers" in peacetime, as "heroes" during war, there will come another reaction, the like of which words cannot anticipate. It will

be the tragic revenge of perverted minds and degraded souls who know no other feelings than lust and hate, no other power than destruction. Those who profit from the beast in man must expect no mercy when the carefully nourished animal grows strong. The symbol of the Fenris wolf, or of Mary Shelley's Frankenstein, has many applications.

AMERICA'S FREEDOM OF THE AIR

Nine years ago, William Orton, writing in the *Atlantic* (January, 1931) on the blatant commercialization of American radio broadcasting, observed:

> The current American assumption that every advance in technique is *ipso facto* an advance in civilization has nowhere had so devastating an exposure. But the blame lies not solely, nor even mainly, with the broadcasting companies. It rests mainly on the shoulders of the American people. Doing lip service to a degree that is literally unparalleled to what are supposed to be the higher aims of collective living, it has acted, and allows its rulers to act, consistently on the rule, "Seek ye first the maximum percentage, and all these things shall be added unto you." And by the time it suspects they are not added, it has ceased to care much whether they are or no.

There has been no change since 1931. Despite a few good "cultural" programs, the dominant purpose of radio broadcasting today is to sell goods. A recent preview of statistical material comparing radio listening with reading habits makes the following comment:

> Radio—as the advertisers know and as this survey bears out—is most effective in playing on the uncritical, childlike mind. A commercial broadcaster finds it easy to get a mail response of 500,000. One broadcast by an advertiser has been known to bring in some 2,500,000 letters. In comparison, the 100,000 letters to congressmen are small change. The Senators and Representatives overestimated their importance.

"TREMENDOUS" RESULTS

> And yet one may hazard the guess that there may be danger for the future in the fact that radio is the preferred medium of those strata of the population that are more suggestible. It is the favorite medium of the great numbers who have not yet been reached by the printed word, who read little or nothing. Its influence with them is often prodigious. The appeal to buy something, skillfully worked into an entertainment program which reaches a big audience, gets

> tremendous results. What would happen if the political spellbinders knew that as well as the advertising men? (*New Republic,* Feb. 19.)

Where has this writer been during the past six months? Paralleling the conflict on land, sea and in the air of Europe, the "war of words" has been polluting the fifth element of Ether with equally tragic, if subtler effect. James B. Reston tells in the New York *Times* Magazine of Feb. 25 how "Lord Haw Haw," as the English have nicknamed a notorious German propagandist, gained a large English audience:

"They are listening for a variety of reasons. . . . some are listening for the same reason that the people listen to the commercial radio in America; to be entertained rather than to hear the advertisements." Entertainment is an important ingredient of most propaganda broadcasts; in fact, governments using this "fourth armament of defense and attack" have little if anything at all to learn from the advertising men who developed the technique.

Education of the Air

In America, as Mr. Orton shows, broadcasters have long known the secret of "success." He quotes an NBC executive who told American educators that education over the radio must be entertaining—"If the educators on the air fail to recognize that fact they are merely firing a blank cartridge." The Federal Bureau of Education, echoing this advice, instructed prospective radio teachers: "Present your specialty on the level of thirteen-year-olds. Do not overrate the intelligence of your listeners. Anecdotes, short and clearly to the point, are good." This method may bring "results," but does it *educate?* The *New Republic* writer gives the answer:

> Radio, the survey finds, tends to play safe. Because of our system of station ownership, program sponsorship and government supervision, broadcasting is apt to stick close to the established pattern of life, to treat most subjects as they already appear to the average mind. Radio, generally speaking, does not attack people or things—unless, of course, they are people or things that are already unanimously disliked, such as Hitler or the bubonic plague. Most programs strive to displease as few listeners as possible.

Levels of Appeal

Those eager to use the air for promulgating Theosophy might give some thought to these conditions of effective "education" via the radio. Theosophists may try to be "all things to all men," but they will never be able to spread an ethics of self-denial and sacrifice

in the form of surefire "entertainment." Prevailing radio programs appeal to certain principles in the human constitution, while Theosophy seeks to arouse quite other springs of action and response. Mass education in Theosophy requires a mass willingness to learn: Theosophy is for those who want it. We are still far from that goal, as the *New Republic* article makes clear:

> . . . there is no question as to the immense size of the radio audience—45,000,000 sets going on an average of five hours a day. In twenty years radio has nearly reached the goal toward which print has been working for five hundred: To extend its audience to include the whole population.
>
> But there is a great difference in the amount of listening done by different kinds of people. The Princeton survey classified the population according to income levels and educational opportunities. And it found conclusively that the higher the level, the more reading. *Radio goes the other way: The lower the level, the more listening.* (Italics ours.)

SUN-SPOTS AND THE AURORA

According to a news note in *Science* for April 26:

> Auroral displays, radio disturbances and magnetic storms are associated with sun-spots. A day or two, on the average, elapses after the occurrences of these great solar storms and auroral displays. This strengthens the idea that electrified particles emitted from the sun, rather than ultra-violet light, cause the aurora and prolonged magnetic storms. The electrified particles travel much more slowly, requiring a day or more to make the journey covered by light in about eight minutes.

This scientific correlation of sun-spot phenomena with weather on earth and with auroral displays bears out statements made in *The Secret Doctrine* many years ago. According to the occult *Commentary:*

> *The Sun is the heart of the Solar World (System) and its brain is hidden behind the (visible) Sun. From thence, sensation is radiated into every nerve-center of the great body, and the waves of the life-essence flow into each artery and vein. . . . The planets are its limbs and pulses. . . .* (*S. D.* I, 541).

STOREHOUSE OF LIFE

Just as the blood of the human body is returned by the veins to the heart, so the vital electricity of the solar system returns to that great reservoir of life, the true Sun, which is "the storehouse of

our little Kosmos, self-generating its vital fluid, and ever receiving as much as it gives out." Although the real sun is unseen, the visible luminary faithfully reflects the interior work:

> Thus, there is a regular circulation of the vital fluid throughout our system, of which the Sun is the heart. . . . Only, instead of performing the round in a second or so, it takes the solar blood ten of its years, and a whole year to pass through its *auricles* and *ventricles* before it washes the *lungs* and passes thence to the great veins and arteries of the system.

The number of sun-spots increases about every eleven years, due to the contraction of the *solar heart*. The direct effect of this solar activity is felt on earth in the disturbance of the ionosphere, interfering with the transmission of radio signals, in magnetic storms and other weather phenomena, and, as now reported, in auroral activity. Both the Aurora Borealis and Australis take place at the very centers of terrestrial electrical and magnetic forces, according to *The Secret Doctrine*. It is, then, no surprise to the theosophist that the aurora should reflect the activity of the very source of vital energy in our system. Says H.P.B.:

> The two poles are said to be the store-houses, the receptacles and liberators, at the same time, of Cosmic and terrestrial Vitality (Electricity); from the surplus of which the Earth, had it not been for these two natural "safety-valves," would have been rent to pieces long ago (I, 205).

Solar Eruptions Not "Gaseous"

Dr. Henry Norris Russell, Princeton astronomer, devotes his article in the June *Scientific American* to the same subject. After reviewing the evidence gathered over many years that sun-spots, magnetic storms on earth, and the Northern Lights, are "all intimately related—not by accident, but by some real causal connection," he adds that "the interpretation of this connection still leads to some of the most puzzling problems of cosmical physics." The difficulty, of course, lies in the scientific attempt to relate these events solely in terms of physical forces. One great error is made in supposing the solar disturbances to be *gaseous* eruptions. "Often," says Dr. Russell, "the luminous gas which goes up comes down again; but there are times when great masses of it are evidently driven clean away into space, at huge and increasing velocity." A Theosophical Adept has written that this mighty movement of "gas" is "simply magnetic matter in its usual state of activity . . . The sun is neither a *solid* nor a *liquid*, nor yet a gaseous glow; but

a gigantic ball of electro-magnetic Forces, the store-house of universal *life* and *motion,* from which the latter pulsate in all directions, feeding the smallest atom as the greatest genius with the same material unto the end of the *Maha Yug.*"

DIVINING RODS

> They take the divining rod seriously in England—so seriously that there is a "British Society of Dowsers," and several serious books have been written on the subject. In fact, the latest contains a 4-page bibliography.
>
> This latest book—"The Physics of the Divining Rod"—is by two authors whose authority is suggested by the initials after their names —B.Sc., A.R.S.C., F.R.A.S., M.A., F.R.S.E. They believe that they have established the physical basis and the utility of dowsing. They claim to show that, "the causes of the ordinary dowsing reflexes and rod reactions are to be found in certain penetrating, electrically excitary rays, one class—the more important of the two—consisting of short Hertzian waves of geophysical or cosmic origin, and exhibiting polarisation and electro-magnetic phenomena." They admit that in some instances, as when dowsing is performed at some distance over a map, or when lost persons or corpses are traced by diviners, a cryptopsychic faculty, allied to clairvoyance and telepathy . . . may be utilized. (*Public Works,* March, 1940.)

We may add to this that the Anglo-Indian Government has long recognized the divining rod as an effective, if not exactly "scientific" instrument for finding water. The diffidence and detachment of *Public Works,* in view of that fact, seems over-cautious. As to the reported explanation, it will do as well as any—until 1975.